EXHIBIT O

Analysis of Infringement of U.S. Patent No. 6,836,691 by MediaTek Inc. and MediaTek USA, Inc.
(Based on Public Information Only)

Plaintiff Ocean Semiconductor LLC ("Ocean Semiconductor"), provides this preliminary and exemplary infringement analysis with respect infringement of U.S. Patent No. 6,836,691, entitled "METHOD AND APPARATUS FOR FILTERING METROLOGY DATA BASED ON COLLECTION PURPOSE" (the "'691 patent") by MediaTek Inc. and MediaTek USA, Inc. ("MediaTek"). The following chart illustrates an exemplary analysis regarding infringement by Defendant MediaTek's semiconductor products, systems, devices, components, and integrated circuits, and products containing such circuits, fabricated or manufactured using PDF Solutions, Inc.'s ("PDF Solutions") platforms, and/or framework, including PDF Solutions' software and APC system, including the Exensio platform hardware and/or software (collectively, "Exensio") and/or other APC system and platform hardware and/or software. Such products include, without limitation, mobile devices (e.g., Helio G, Helio A, Helio P, Helio X, mid-range 4G devices, and Google Mobile Services express devices), tablet products (e.g., MiraVision), internet of things devices (e.g., i500, i350, i300A, i300B, MT3620, MT2625, MT2621, MT2601, MT2523G, MT2523D, MT2511, MT6280, MT2502, MT5931, MT3332, MT 2503, MT3333, MT3303, MT3337, and MT3339), automotive devices (e.g., Autus I20 (MT2712) devices, Autus R10 (MT2706) devices, and Autus T10 (MT2635) devices), networking and broadband devices (e.g., MediaTek T750 MT7688A, MT7628K/N/A, MT7623N/A, MT7622, MT7621A/N, MT7620N/A, RT3662, RT3883, MT7688K, MT5932, MT8167S, MT7686, MT7682, MT7697H/HD, MT7681, MT7687F, MT7697, MT7697D, MT7601E, MT7601U, MT7603E, MT7603U, MT7610E, MT7610U, MT7612E, MT7612U, MT7615, MT7615B, MT7615S, MT7662E, MT7662U, MT7668, RT3062, RT3070, RT3562, RT3573, RT3593, RT5370, RT5572, RT5592, MT3729, MT7601, MT7610, MT7630, RT5372, RT539x, RT8070, RT2870, RT2890, RT309x, RT3290, RT3370, RT3572, RT2070, RT2760, RT2770, RT2790, and RT2860), and home devices (e.g., MT8516 SoM, MT8516, MT8507, MT8502, MediaTek C4X Development Kit for Amazon AVS, MT8516 2-Mic Development Kit for Amazon AVS, MT8516, MT8693, MT8685, MT8581, MT8580, MT8563, MT8553, MT1389/G, MT1389/J, MT1389/Q, S900 (MT9950), MT9613, MT9685, MT9602, MT5592, MT5582, MT5596, MT5597, MT5580, MT5561, MT5505, MT5398, MT5396, MT1959, MT1887, MT1865, MT1862, and MT1398), and similar systems, products, devices, and integrated circuits including, for example, products manufactured at 16nm technology node ("'691 Infringing Instrumentalities").

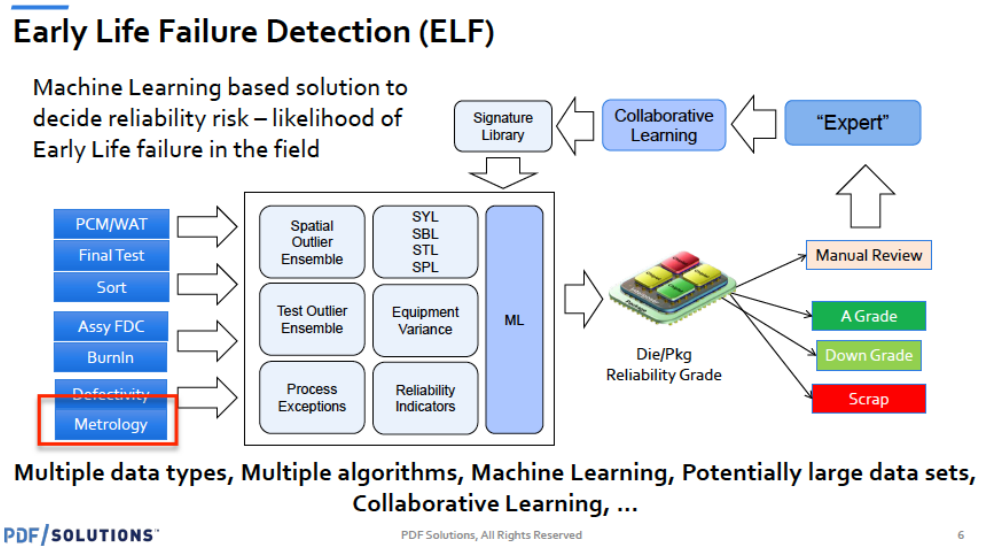
The analysis set forth below is based only upon information from publicly available resources regarding the '691 Infringing Instrumentalities, as MediaTek has not yet provided any non-public information.

Unless otherwise noted, Ocean Semiconductor contends that MediaTek directly infringes the '691 patent in violation of 35 U.S.C. § 271(g) by using, selling, and/or offering to sell in the United States, and/or importing into the United States, the '691 Infringing Instrumentalities. The following exemplary analysis demonstrates that infringement. Unless otherwise noted, Ocean Semiconductor further contends that the evidence below supports a finding of indirect infringement under 35 U.S.C. § 271(b) in conjunction with other evidence of liability.

Unless otherwise noted, Ocean Semiconductor believes and contends that each element of each claim asserted herein is literally met through MediaTek's provision or importation of the '691 Infringing Instrumentalities. However, to the extent that MediaTek attempts to allege that any asserted claim

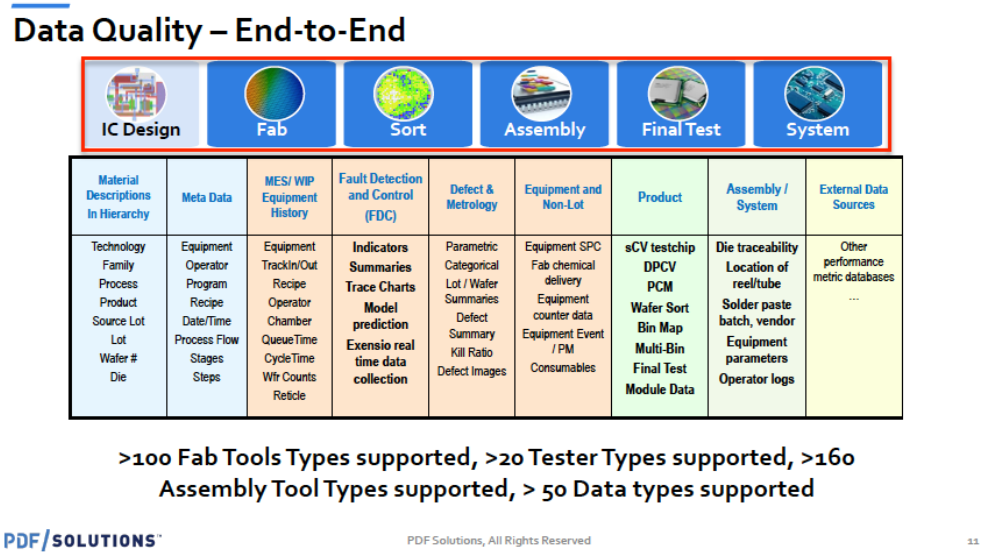
element is not literally met, Ocean Semiconductor believes and contends that such elements are met under the doctrine of equivalents. More specifically, in its investigation and analysis of the '691 Infringing Instrumentalities, Ocean Semiconductor did not identify any substantial differences between the elements of the patent claims and the corresponding features of the Infringing Instrumentalities, as set forth herein. In each instance, the identified feature of the '691 Infringing Instrumentalities performs at least substantially the same function in substantially the same way to achieve substantially the same result as the corresponding claim element.

Ocean Semiconductor notes that the present claim chart and analysis are necessarily preliminary in that Ocean Semiconductor has not obtained substantial discovery from MediaTek nor has MediaTek disclosed any detailed analysis for its non-infringement position, if any. Further, Ocean Semiconductor does not have the benefit of claim construction or expert discovery. Ocean Semiconductor reserves the right to supplement and/or amend the positions taken in this preliminary and exemplary infringement analysis, including with respect to literal infringement and infringement under the doctrine of equivalents, if and when warranted by further information obtained by Ocean Semiconductor, including but not limited to information adduced through information exchanges between the parties, fact discovery, claim construction, expert discovery, and/or further analysis.

USP No. 6,836,691	Infringement by the '691 Accused Instrumentalities
1. A method, comprising: collecting metrology data related to the processing of workpieces in a plurality of tools;	PDF Solutions Inc.'s Exensio platform (the "Exensio platform") collects metrology data related to the processing of workpieces in a plurality of tools. For example, the Exensio platform enables links across fab, test floor, and other enterprise data types including "inline and end-of-line metrology, yield, parametric, performance, manufacturing consumables, tool-level sensor data, test floor data, logistical data, as well as custom data types. By providing a common environment for all these different data types from many different points in the manufacturing and test process," the Exensio platform is "designed to enable customers to rapidly perform root cause diagnosis of yield, performance, and quality issues that impact manufacturing and test operations," and "enable[s] predictive and proactive optimization decisions for process control, process adjustments, PM scheduling, tool corrective actions, wafer dispatching, and wafer level and final test." *See* PDF Solutions Inc.'s Form 10-K (filed Mar. 10, 2020) at 6, *available at* http://ir.pdf.com/static-files/fb23407a-dfbc-489f-adb1-ac54e83102ad (last visited Apr. 30, 2020) ("2020 Form 10-K"). The Exensio platform also collects metrology data to determine reliability risk and early life failure: 

See S1.2—Exensio Platform, 16th Annual PDF Solutions Users Conference (Oct. 15, 2019) at 6, *available at* http://www.pdf.com/upload/File/Investors/PUG2019/S1.2%20PUG2019_ExensioPlatform_SaidAkar.pdf ("S1.2—Exensio Platform Presentation") (last visited Apr. 30, 2020) (annotated).

The metrology data is collected, analyzed, and controlled across the entire manufacture pipeline, including integrated circuit design, fabrication, sort, assembly, test, and system:



See S1.2—Exensio Platform Presentation at 11 (annotated).

The Exensio Platform collects the metrology data through a number of its platform modules, including the control module (to detect and identify process or tool problems in fab and assembly in real time), the test module (to prevent test issues and offer higher yield and reliability), the yield module (to drive higher manufacturing yields and integrate all frontend and backend data), the char module (to provide big data analytics on processing tools), and the ALPS module (to trace wafers, dies, and multichip modules):

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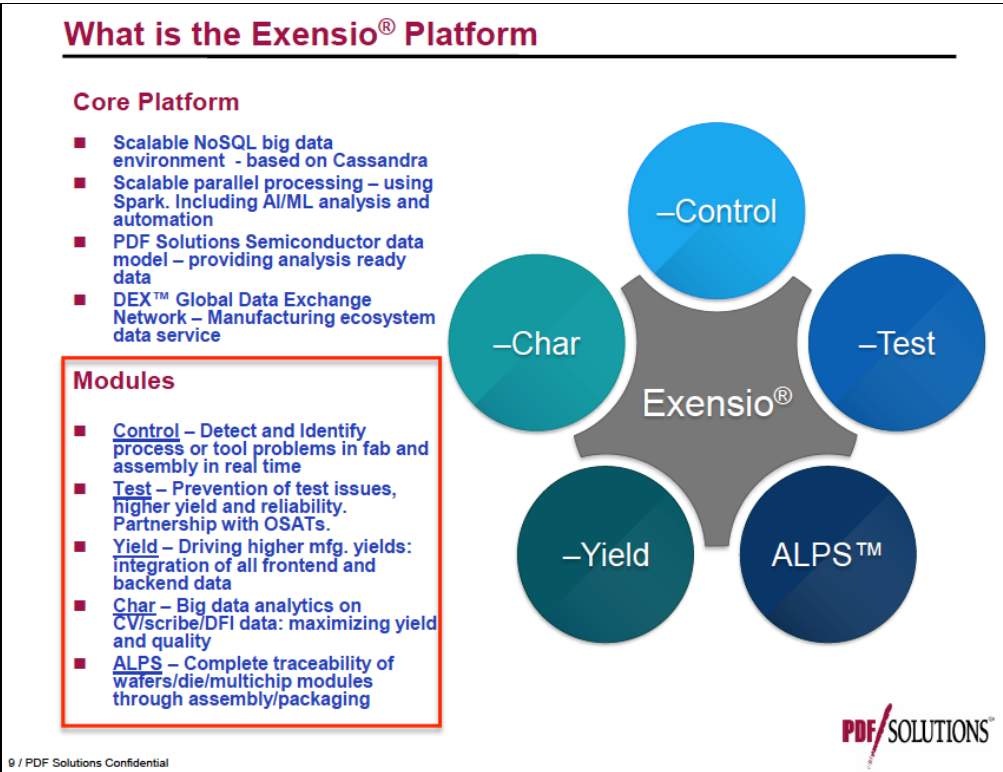

See PDF Solutions, Inc. Overview Jefferies Conferences (Aug. 28-29, 2018) at 9, available at https://www.pdf.com/upload/File/Investors/PDFExecOveriew2018II.pdf (last visited Apr. 30, 2020) (“PDF Overview”) (annotated).
</td>
</tr>
<tr>
<td>generating context data for the metrology data, the context data including collection purpose data;</td>
<td>PDF’s Exensio platform generates context data for the metrology data, the context data including collection purpose data.

For example, the Exensio platform generates context data including collection purpose data covering process control, test operations, manufacturing analytics, assembly operations, and process characterization:</td>
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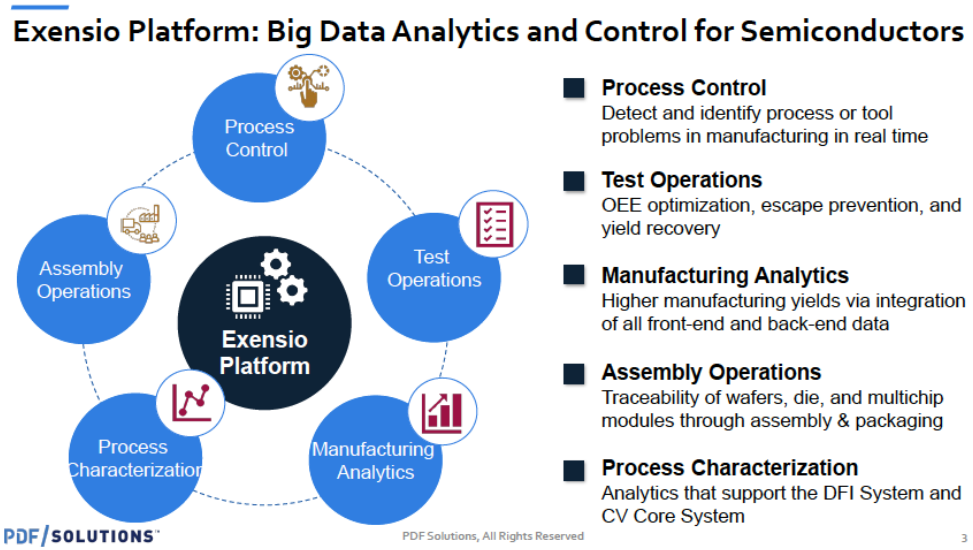
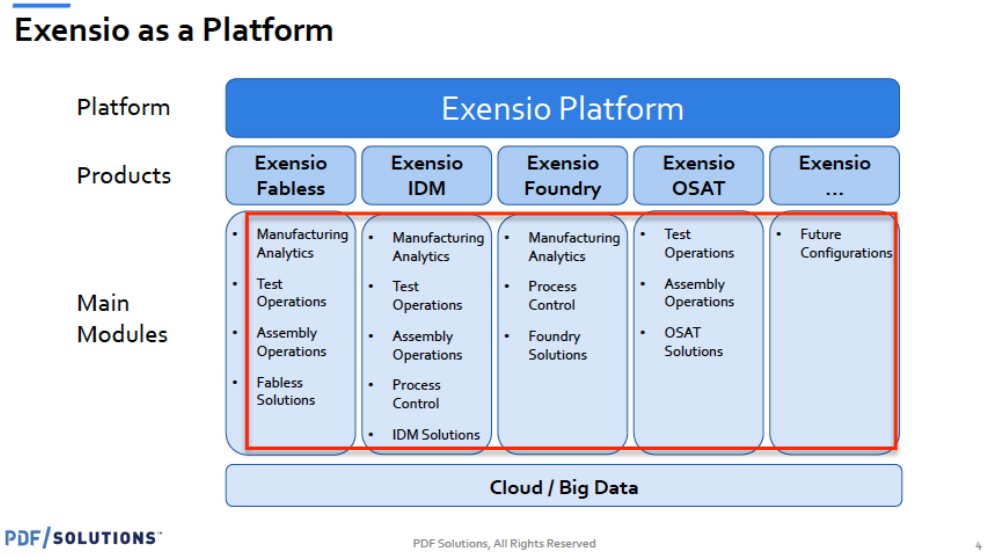
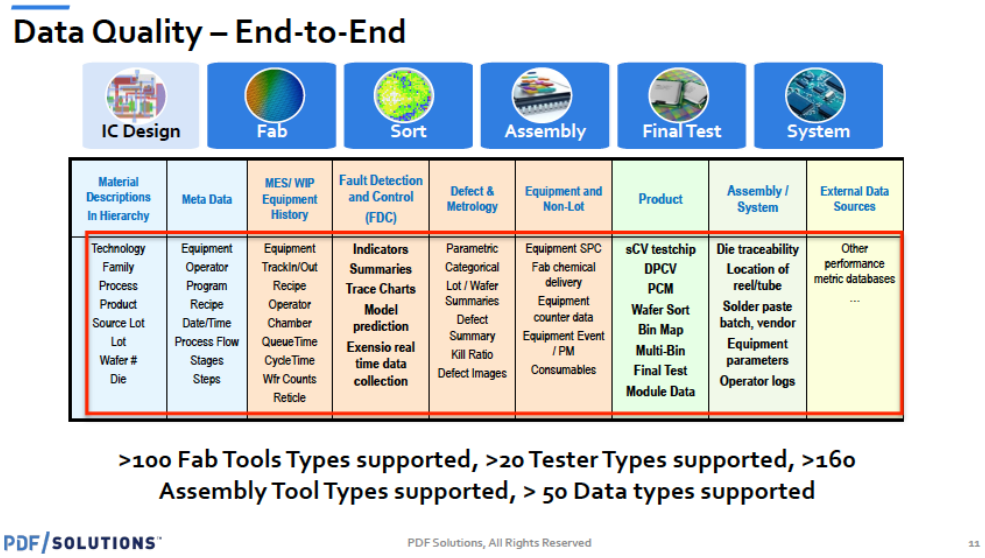
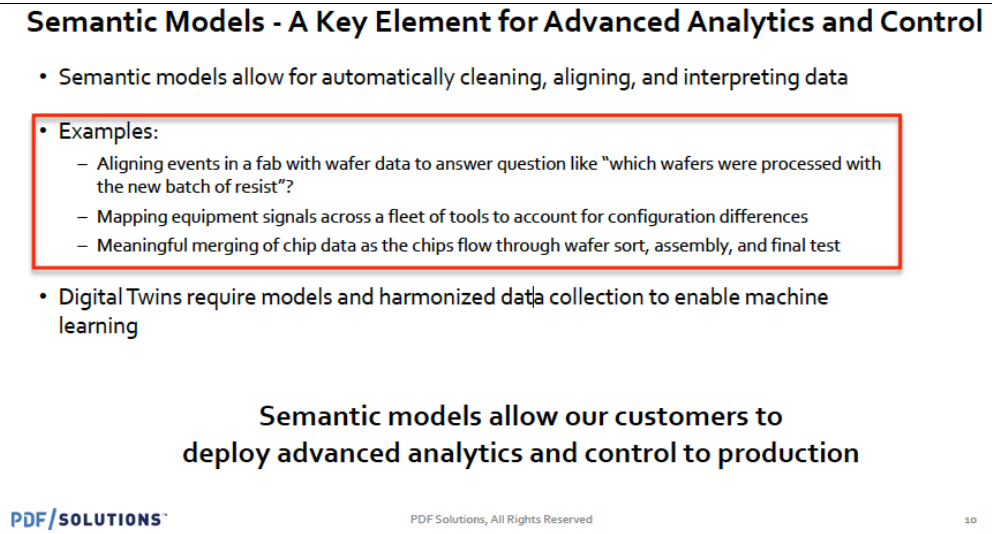


See S1.2—Exensio Platform Presentation at 3; *see also id.* at 4 (annotated):



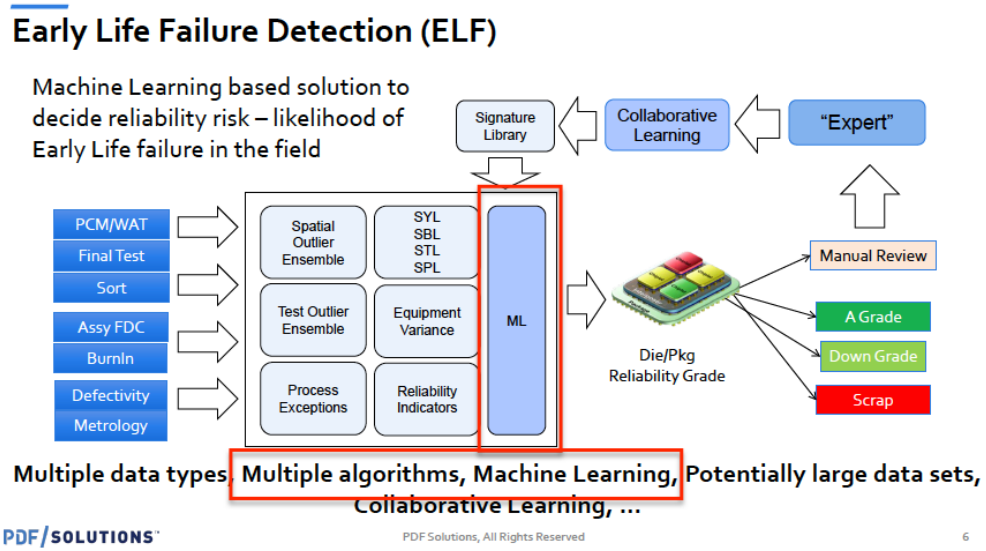
The collection purpose data, for example, includes:

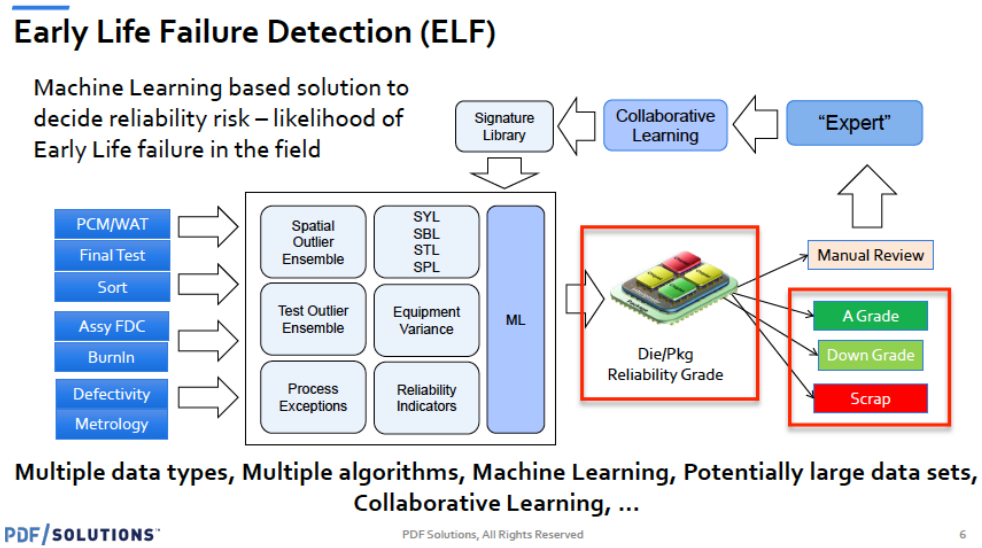
	• Material descriptions (e.g., lot #, wafer #, die); • Meta data (e.g., recipe data/time, process flow, stages, and steps); • Fault detection and control (e.g., trace charts, model prediction, real time data collection on defects); • Defect & metrology (e.g., lot/wafer summaries, defect summary, kill ratio, and defect images); and • Assembly system (e.g., location of reel/tube, die traceability, and equipment parameters):  *See* S1.2—Exensio Platform Presentation at 11 (annotated).
filtering the metrology data based on the collection purpose data; and	PDF's Exensio platform filters the metrology data based on the collection purpose data. As an example, the Exensio platform uses semantic modeling to filter the metrology data (e.g., by cleaning, aligning, and interpreting the data) to address, for example, a particular process control activity (e.g., aligning events in fabrication with wafer data to answer process-related questions such as "which wafers were processed with the new batch of resist"):

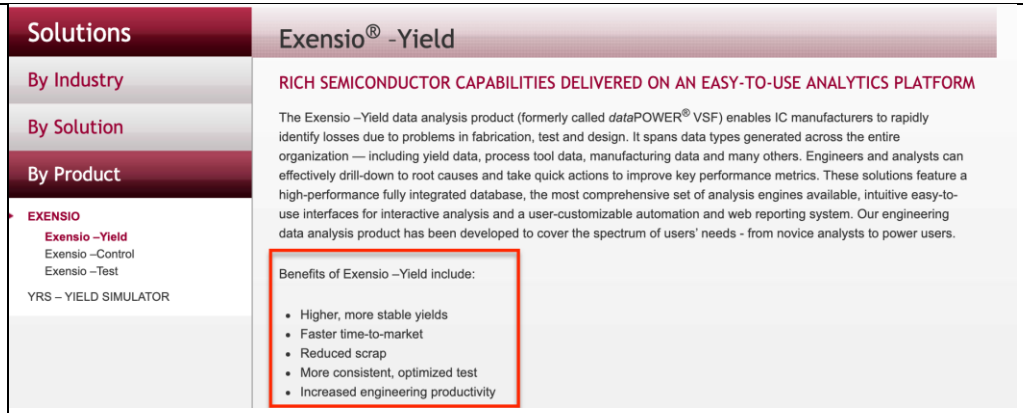


See S1.2—Exensio Platform Presentation at 10 (annotated).

As another example, the Exensio platform uses machine learning and multiple algorithms to filter the metrology data based on the collection purpose data:

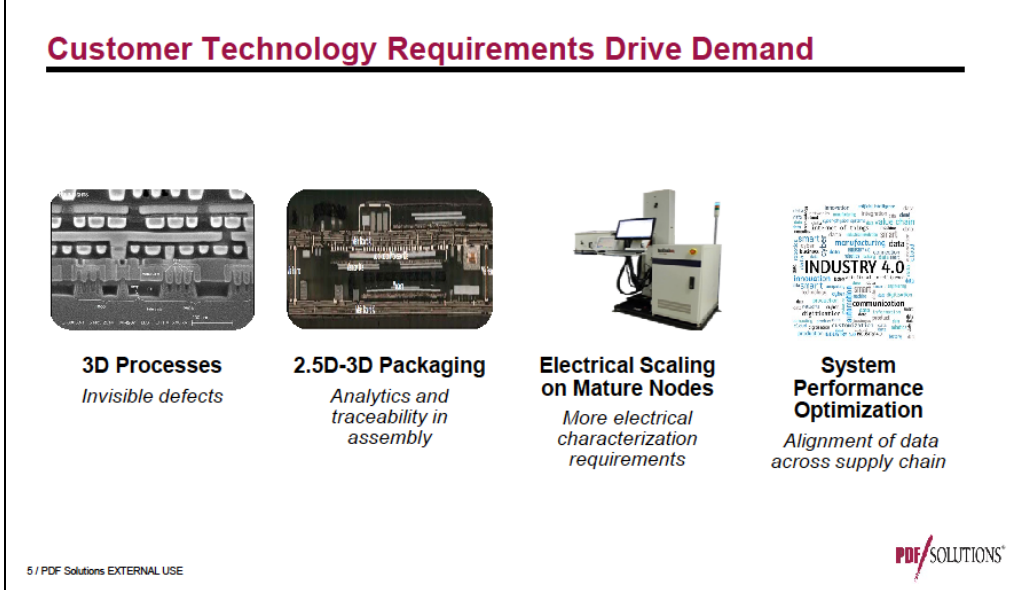


	See S1.2—Exensio Platform Presentation at 6 (annotated).
conducting a process control activity related to one of the tools based on the filtered metrology data.	PDF's Exensio platform conducts a process control activity related to one of the tools based on the filtered metrology data. For example, based on the filtered metrology data, the Exensio platform is able to detect early life failure of a particular die or chipset package and determine whether to downgrade or scrap the die or chipset package:  *See* S1.2—Exensio Platform Presentation at 6 (annotated). As another example, based on the filtered metrology data, the Exensio platform identifies losses due to problems in fabrication, test and design, which in turn, allow quick actions to be taken to improve key performance metrics, including achieving and more stable yields, reducing scraps, allowing more consistent and optimized test, and increasing engineering productivity:



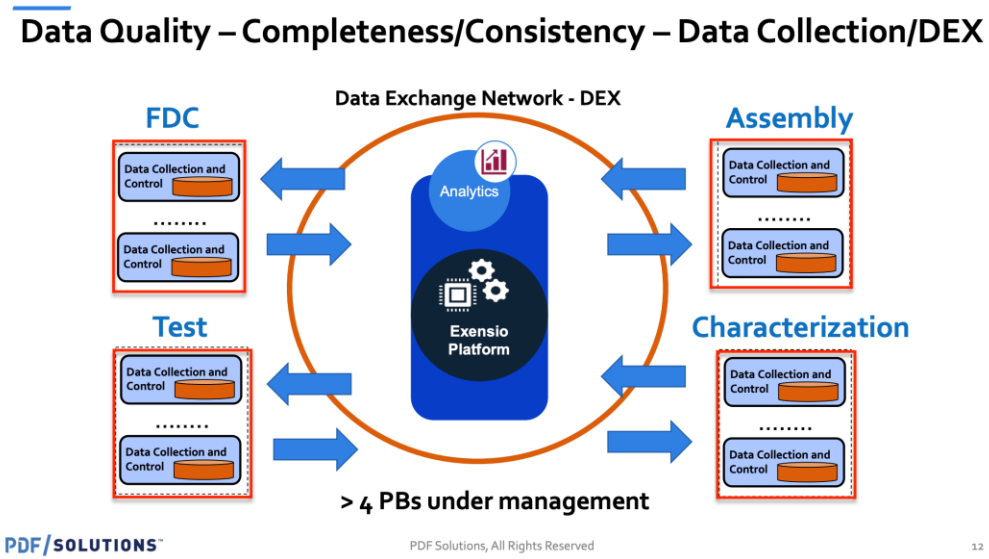
See Exensio-Yield, Rich Semiconductor Capabilities Delivered on an Easy-to-Use Analytics Platform, *available at* http://www.pdf.com/Exensio-Yield (last visited Apr. 30, 2020).

As another example, the Exensio platform identifies invisible defects, traces components during assembly and packaging, and optimizes system performance across supply chain based on the filtered metrology data:



See Kibarian et al., PDF Solutions, Inc. Needham Growth Conference (Jan. 16, 2019) at 5, *available at* https://www.pdf.com/upload/File/Investors/INVPres2019/PDFS%20investor%20presentation%2016-Jan-2019%20(final).pdf (last visited Apr. 30, 2020) ("PDF Needham Conference Presentation").

As yet another example, based on the filtered metrology data, the Exensio platform controls activities in fault-detection and classification, testing, assembly and packaging, and data characterization:



See S1.2—Exensio Platform Presentation at 12 (annotated).

As yet another example, based on the filtered metrology data, the Exensio platform monitors, triggers alarms, and controls manufacturing tool sets:

"● Exensio Control – This software provides failure detection and classification (or FDC) capabilities for monitoring, alarming and control of manufacturing tool sets. These capabilities include proprietary data collection and analysis of tool sensor trace data and summary indicators designed to rapidly identify sources of process variations and manufacturing excursions. When used together with Exensio Yield and related modules, the accretive data mining and correlation capabilities are designed to enable identification of tool level sources of yield loss and process variation that impact end of line product yield, performance and reliability."

See 2020 Form 10-K at 7.